



# Eclipse Engineering, Inc.

consulting engineers

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2034590

January 31, 2005

**Ron McManamy**  
**Environmental Quality Management**  
**6825 216<sup>th</sup> Street SW, Suite J**  
**Lynnwood, WA 98036**

Re: Roof Chute Anchor Design  
Former Mobile Shop  
Stimpson Lumber Mill  
Libby, Montana

Ron,

As requested, we have designed the roof chute anchor system. The roof chutes consist of 24" diameter flex PVC pipes (specified and provided by others) that will be used to send the concrete roofing material down to the ground. The roof chute will be anchored at the roof, the columns, and the ground. Per the scope of work, as outlined in the request for proposal, dated 12/08/04, the anchor system is to be designed to support an estimated 1500 pounds.

The overall intent of the roof chute anchor design assumes that the flex PVC pipe will be attached to the side of the building and "elbow" out at the top extending past the edge of the overhang (approximately 16"). The roof chute will also "elbow" out at the bottom of the building and into the dump truck (or other catch device). Reference attached detail A, sheet 1 of 4, for an overall side elevation of the roof chute. The roof chute shall be anchored to the roof perimeter catch knee brace as shown on attached detail B, sheet 2 of 4. The roof chute shall be spaced to align with the roof perimeter catch knee braces (approximately 20'-3" on center) and shall be connected to the 2x6 wall planks as shown on attached detail C, sheet 3 of 4. At the base of the building the roof chute shall "elbow" out away from the building and be supported by a wood base as shown on attached detail D, sheet 4 of 4. The height from the ground to the end of the roof chute, as well as the horizontal distance from the edge of the building to the end of the roof chute, shall be determined by the contractor and coordinated with Eclipse Engineering prior to installation.

235 North 1<sup>st</sup> St. West, 2<sup>nd</sup> Floor  
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[www.eclipse-engineering.com](http://www.eclipse-engineering.com)

We have designed the roof chute anchor system to support the required 1500 pounds only and hold no responsibility for any other element or the integrity of the structure as a whole. If the loading conditions change during construction, Eclipse Engineering shall be notified prior to proceeding with work. Please call with any specific questions.

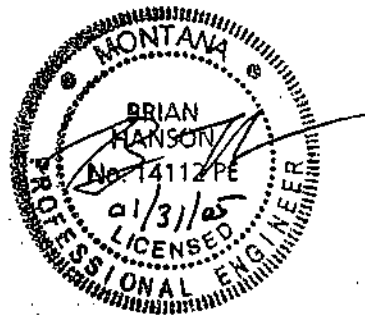
Sincerely,

**Eclipse Engineering, Inc.**

Brian Hanson, P.E.  
Project Engineer

Enclosures:

Detail A, sheet 1 of 4.  
Detail B, sheet 2 of 4.  
Detail C, sheet 3 of 4.  
Detail D, sheet 4 of 4.

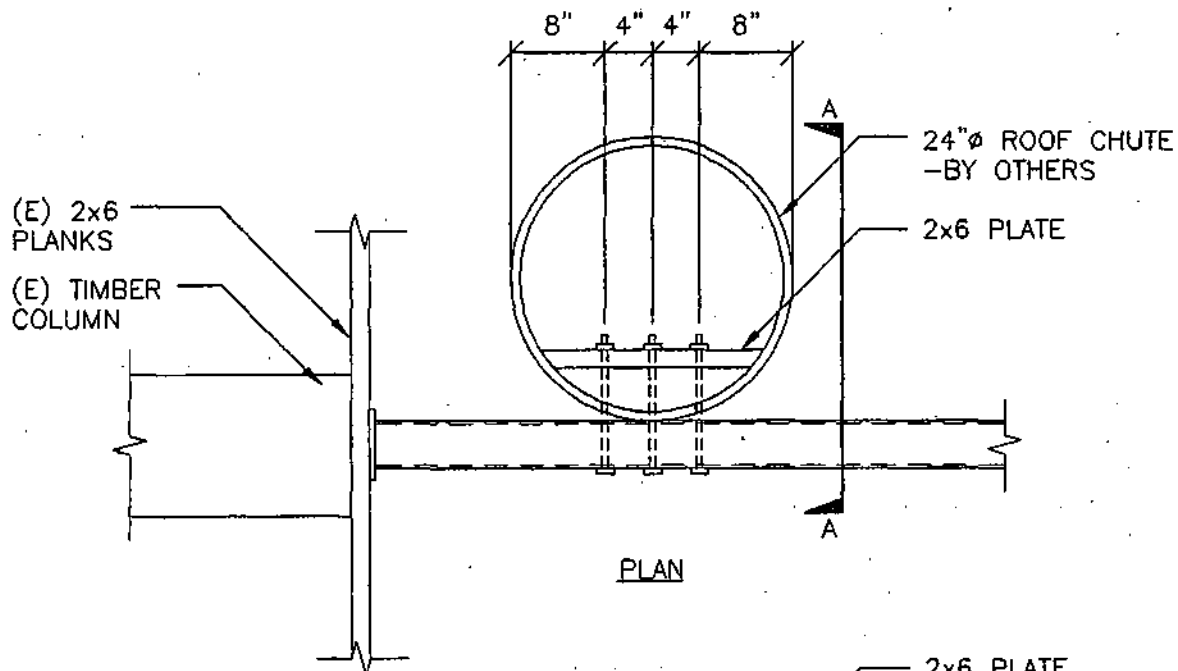


(E) SLAB

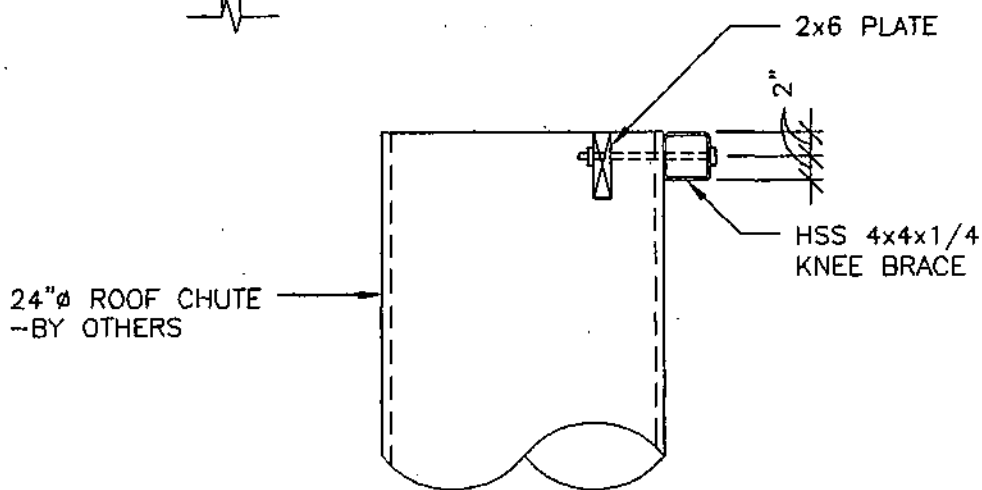
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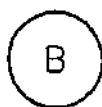
DESIGN BY:  
 BH



PLAN



SECTION A-A



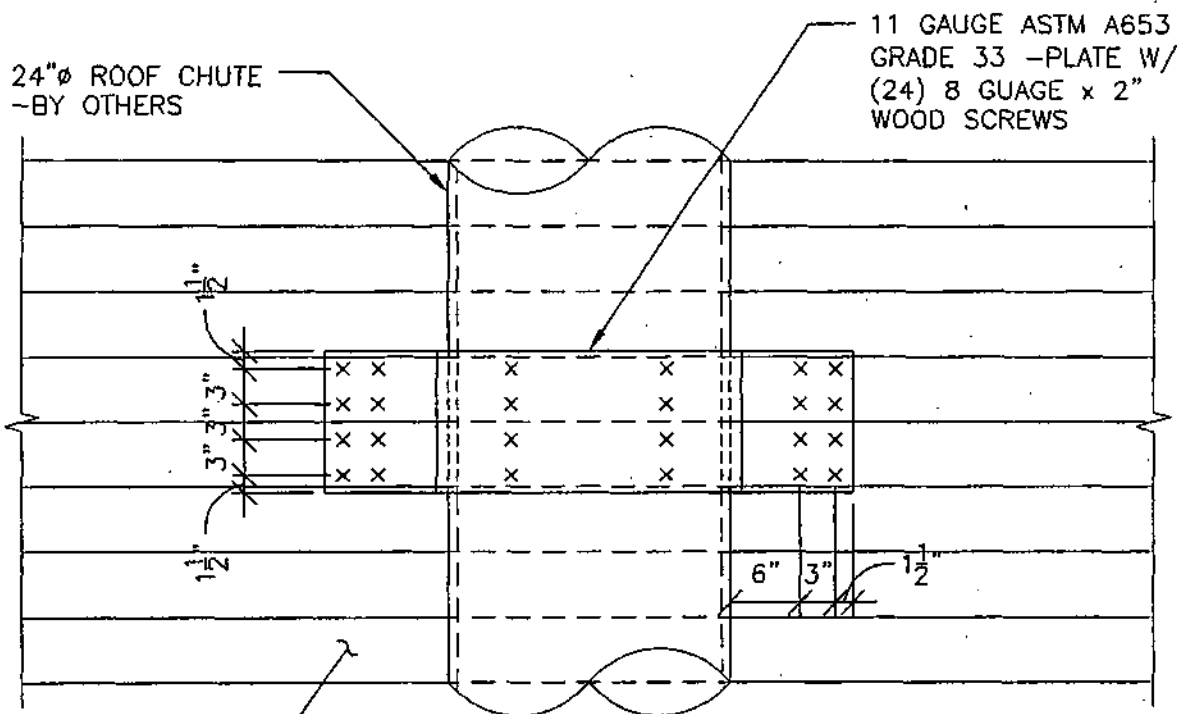
KNEE BRACE TO ROOF CHUTE

SCALE: 3/4" = 1'-0"

DATE:  
 01/31/05

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 BP

DESIGN BY:  
 BH



(E) 2x6  
 WALL PLANKS

ELEVATION

11 GAUGE ASTM A653  
 GRADE 33 -PLATE

24"Ø ROOF CHUTE  
 -BY OTHERS

PLAN



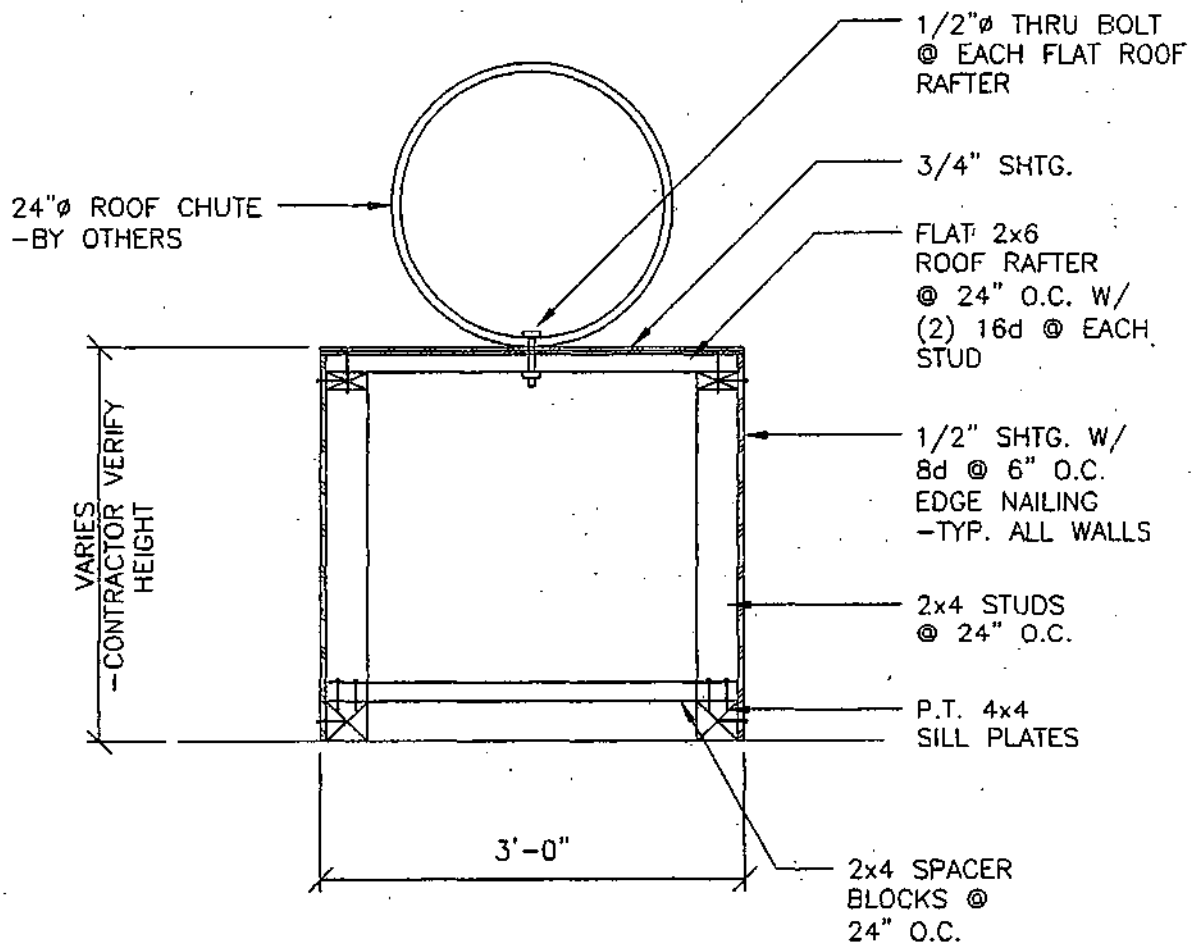
ROOF CHUTE TO WALL PLANKS

SCALE: 3/4" = 1'-0"

DATE:  
 01/31/05

DRAWN BY:  
 BP

DESIGN BY:  
 BH



ROOF CHUTE TO WOOD BASE

SCALE: 3/4" = 1'-0"